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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/799,077	03/12/2004	Brent Hughes	8151	8515

21924 7590 11/22/2006

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EXAMINER	
DESIR, PIERRE LOUIS	

ART UNIT	PAPER NUMBER
2617	

DATE MAILED: 11/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/799,077	HUGHES, BRENT	
	Examiner	Art Unit	
	Pierre-Louis Desir	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 September 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4-15 and 17-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4-15 and 17-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed on 09/11/2006 have been fully considered but they are not persuasive.

Applicants argue that Garrabrant and Skinner do not disclose a processor having RF circuitry.

Examiner respectfully disagrees. Garrabrant discloses a method and system of periodically measuring the signal strength fluctuations in a wireless connection between a portable computer system and a wireless network. The portable computer system has a main processor and a DSP (digital signal processor). The DSP receives instructions from the main processor for controlling the periodic measuring, and subsequent thereto is placed in low power mode. The main processor is placed into a low power mode after sending the instructions. The DSP periodically awakens to measure the signal strength fluctuations while the main processor remains in a low power mode. When the signal strength fluctuation is unacceptable, this triggers the DSP to awaken the main processor. When the signal strength fluctuation is acceptable, the DSP returns to a low power state until the next periodic measuring (see abstract). portable computer system 100 includes an address/data bus 130 for communicating information, a central (main) processor 131 coupled with the bus 130 for processing information and instructions, a volatile memory 132 coupled with the bus 130 for storing information and instructions for the main processor 131, and a non-volatile memory 133 (e.g., read only memory, ROM) coupled with the bus 130 for storing static information and instructions for the main processor 131. Portable computer system 100 also includes a signal input/output device (transceiver) 144

providing it with the capability for wireless communication. The transceiver 144 provides a wireless radio frequency (RF) communication link between computer system 100 and other devices, using any of the various RF protocols and standards. Also, the portable computer system 100 includes communication circuitry 135 coupled to bus 130, which communication circuitry 135 is a universal synchronous receiver-transmitter (UART) module that provides the receiving and transmitting circuits required for serial communication for both the serial port 180 and the infrared port 64. Communication circuitry 135 also includes DSP (digital signal processor) 136 for processing data to be transmitted or data that are received via transceiver 144 (see figs. 4-5, col. 7, line 26-col. 9, line 4, and col. 9, lines 36-49). Garrabrant discloses that the DSP measured signal strength fluctuation of a wireless connection through the transceiver, which provides the wireless communication radio frequency (RF) link and the communication circuitry, which provides the receiving and transmitting circuits required for communication for the serial and the infrared port (see fig. 4). Also refer to Skinner fig. 4, and col. 5, line 56-col. 7, line 1 for the same disclosure. Therefore, both Garrabrant and Skinner disclose a processor having RF circuitry.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

In response to Applicant's argument regarding the references specifically teaches that RF transceiver circuitry is separate from the processor, in the portion cited by Applicant, Garrabrant discloses that in addition to the main processor, the portable computer system may also include a DSP (digital signal processor), adapted for processing of data to be transceived. Thus, there is a disclosure of a processor that has RF circuitry. Also, Applicants is hereby referred to fig. 4 and its description as pertained to the central main processor 131, the communication circuitry 135, which includes the DSP 136 and their connection as related to the data bus 130.

Regarding claims 4 and 5, Applicants argue that the references teach that the RF circuitry sleeps while in sleep mode (as related to communication circuit 135). Applicants state that in Garrabrant, the DSP 136 appears to be part of, or shares connection to bus 130 with, communication circuit 135. Garrabrant teaches that DSP 136 sleeps during sleep mode, but does not teach that the communication circuit 135 sleeps.

Examiner respectfully disagrees with Applicants. As stated by Applicants, Garrabrant discloses that the DSP 136 sleeps during sleep mode. Thus, Garrabrant discloses a method wherein at least one portion put into sleep mode includes main processor circuitry (i.e., processor 131) and radio frequency communication circuitry (i.e., DSP 136 for processing data to be transmitted or data that are received via transceiver 144, and which measures signal strength fluctuation of a wireless connection through the transceiver, which provides the wireless communication radio frequency (RF) link and the communication circuitry, which provides the receiving and transmitting circuits required for communication for the serial and the infrared port) (see fig. 4, col. 7, line 26-col. 9, line 4, and col. 9, lines 36-49).

Regarding claim 8, Applicant argues that Garrabrant discloses using a DSP, which is more sophisticated than a micro controller. Thus, add applicants, a micro controller is not discloses in Garrabrant.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., micro controller) is not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garrabrant et al. (Garrabrant), U.S. Patent No. 6952571, in view of Skinner et al. (Skinner), U.S. Patent No. 6901276.

Regarding claim 1, Garrabrant discloses a method comprising determining whether an active radio frequency ("RF") communication channel is present at a network connection (i.e., periodically measuring the signal strength fluctuations in a wireless connection) (see abstract, also refer to col. 3, lines 15-17); placing the processor into a sleep mode if an active RF channel or an RF channel that can be made active is not detected (see abstract, figs. 4-5, col. 3, lines 17-

20, col. 7, line 26-col. 9, line 4, and col. 9, lines 36-49); starting a timer set for a predetermined period if an active channel or one of the plurality of possible RF channels is not detected (i.e., the main processor send a command to the DSP which includes a sleep time) (see col. 3, lines 15-17); and awakening the processor from sleep mode when the predetermined period has elapsed (i.e., the internal timer of the DSP periodically (as specified by the sleep time) awakens the DSP) (see col. 3, lines 21-24).

Although Garrabrant discloses a method comprising a processor having RF circuitry (see figs. 4-5, col. 7, line 26-col. 9, line 4, and col. 9, lines 36-49), Garrabrant does not specifically disclose a method comprising scanning a plurality of possible RF channels to detect whether an RF channel is present that can be made active.

However, Skinner discloses a method comprising scanning a plurality of possible RF channels using a processor having RF circuitry to detect whether an RF channel is present that can be made active (i.e., broadcast channels used by the wireless network are scanned by the DSP to identify channels that have sufficient strength) (see abstract, fig. 4, and col. 5, line 56-col. 7, line 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to implement scanning of broadcast channels by the DSP in the method as described by Garrabrant because such implementation would provide periodic signal strength monitoring without unduly depleting the power supply within the device (see Garrabrant col. 2, lines 65-67).

Regarding claim 4, Garrabrant discloses a method comprising determining whether an active radio frequency ("RF") communication channel is present at a network connection (i.e., periodically measuring the signal strength fluctuations in a wireless connection) (see abstract,

also refer to col. 3, lines 15-17); placing at least one portion of the communication device into a sleep mode if an active RF channel or an RF channel that can be made active is not detected (i.e., the main processor is put into a low power (sleep) mode) (see col. 3, lines 17-20); starting a timer set for a predetermined period if an active channel or one of the plurality of possible RF channels is not detected (i.e., the main processor send a command to the DSP which includes a sleep time) (see col. 3, lines 15-17); and awakening the at least one portion from sleep mode when the predetermined period has elapsed (i.e., the internal timer of the DSP periodically (as specified by the sleep time) awakens the DSP) (see col. 3, lines 21-24); and wherein the main processor circuitry includes radio frequency communication circuitry (i.e., the main processor send command to DSP which includes the channel to scan. And, upon detecting fluctuations that exceeds threshold levels, the DSP awakens the main processor to act upon (start communication). Thus, the main processor inherently includes radio frequency communication circuitry) (see col. 3, lines 24-26).

Although Garrabrant discloses a method comprising a processor having RF circuitry (see figs. 4-5, col. 7, line 26-col. 9, line 4, and col. 9, lines 36-49), Garrabrant does not specifically disclose a method comprising scanning a plurality of possible RF channels to detect whether an RF channel is present that can be made active.

However, Skinner discloses a method comprising scanning a plurality of possible RF channels using a processor having RF circuitry to detect whether an RF channel is present that can be made active (i.e., broadcast channels used by the wireless network are scanned by the DSP to identify channels that have sufficient strength) (see abstract, fig. 4, and col. 5, line 56-col. 7, line 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to implement scanning of broadcast channels by the DSP in the method as described by Garrabrant because such implementation would provide periodic signal strength monitoring without unduly depleting the power supply within the device (see Garrabrant col. 2, lines 65-67).

Regarding claim 5, Garrabrant discloses a method comprising determining whether an active RF communication channel is present at a network connection of the communication device (i.e., periodically measuring the signal strength fluctuations in a wireless connection) (see abstract, also refer to col. 3, lines 15-17); placing at least one portion of the communication device into sleep mode if an active RF channel or an RF channel that can be made active is not detected (i.e., the main processor is put into a low power (sleep) mode) (see col. 3, lines 17-20); determining whether RF energy is present at the network connection using an RF energy detecting means (see col. 3, lines 24-26); awakening the at least one portion from sleep mode when RF energy is detected by the RF energy detecting means (see col. 3, lines 24-26); and wherein the main processor circuitry includes radio frequency communication circuitry (i.e., the main processor send command to DSP which includes the channel to scan. And, upon detecting fluctuations that exceeds threshold levels, the DSP awakens the main processor to act upon (start communication). Thus, the main processor inherently includes radio frequency communication circuitry) (see col. 3, lines 24-26).

Although Garrabrant discloses a method as described, Garrabrant does not specifically disclose a method comprising scanning a plurality of possible RF channels to detect whether an RF channel is present that can be made active; and scanning the plurality of possible RF channels

to detect whether an RF channel is present that can be made active after awakening following detection of the presence of RF energy.

However, Skinner discloses a method wherein broadcast channels used by the wireless network are scanned by the DSP to identify channels that have sufficient strength. When the DSP identifies acceptable channels, it wakes up the main processor and identifies the channels having sufficient signal strength (see abstract).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to implement scanning of broadcast channels by the DSP in the method as described by Garrabrant because such implementation would provide periodic signal strength monitoring without unduly depleting the power supply within the device (see Garrabrant col. 2, lines 65-67).

Regarding claim 6, Garrabrant discloses a method (see claim 5 rejection) further comprising: starting a timer set for a predetermined period if one of the plurality of possible RF channels is not detected following detection of the presence of RF energy (i.e., the main processor send a command to the DSP which includes a sleep time) (see col. 3, lines 15-17); placing the at least one portion of the communication device into sleep mode if an RF channel that can be made active is not detected following starting of the timer (see col. 3, lines 17-20); and awakening the at least one portion from sleep mode when the predetermined period has elapsed (i.e., the internal timer of the DSP periodically (as specified by the sleep time) awakens the DSP) (see col. 3, lines 21-24).

4. Claims 2 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garrabrant and Skinner, in further view of Matsunaga et al. (Matsunaga), Pub. No. US 2004/0033812.

Garrabrant and Skinner disclose a method as described above (see claims 1 and 5 rejections).

Although the combination (Garrabrant and Skinner) discloses a method as described, the combination does not specifically disclose a method further comprising detecting the restoration of offsite power while the timer is counting down the predetermined period and awakening the at least one portion from sleep mode (upon restoration of off site power).

However, Matsunaga discloses a method wherein when it is detected that that an AC power supply is used to operate the computer system, the operation mode is set to the normal mode (see page 4, paragraphs 50-53).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described by Matsunaga with the teachings as described by Garrabrant and Skinner to arrive at the claimed invention. A motivation for doing so would have been to switch power consumption from the battery to the AC power supply is detected, which would prolong the service life of the battery.

5. Claims 8-15, 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garrabrant in view of Gibbons et al. (Gibbons), U.S. Patent No. 6085114.

Regarding claim 8, Garrabrant discloses a system (see abstract) comprising a processor means for determining whether to reduce power consumption of the communication device (i.e.,

portable computer systems are enabled to be placed into a minimum or low power mode such as sleep mode or a deep sleep mode, while the system is not processing a specific function or particular operation) (see col. 1, line 66 to col. 2, line 2); and a switching means for placing the processor into a sleep mode by inherently interrupt power from the battery (i.e., the main processor is put into a low power (sleep) mode) (see col. 3, lines 17-19). Garrabrant also discloses a central (main) processor, which as known in the system functions as the brain of the device and inherently connected or coupled to all the component of the device (e.g., via bus 130), which would inherently include component which controls the operation of the battery (see fig. 4).

Although Garrabrant discloses a system comprising a switching means for placing the processor means into a sleep mode in response to a control signal from the controller (see abstract), Garrabrant does not specifically disclose a system comprising a controller means coupled to the UPS for controlling operation of the UPS; and interrupting power to at least one circuitry portion.

However, Gibbons discloses a system comprising a controller coupled to the UPS for controlling operation of the UPS (see col. 2, lines 55-59), and interrupting power to at least one circuit portion (see col. 2, lines 58-60).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described by Garrabrant with the teachings as described by Gibbons to arrive at the claimed invention. A motivation for doing so would have been to ensure the proper functioning of the device without unduly depleting the power supply within the device (see Garrabrant col. 2, lines 65-67).

Regarding claim 9, Garrabrant discloses a system (see claim 8 rejection) further comprising an RF detecting means for determining whether RF energy is present at the network connection (i.e., periodically measuring the signal strength fluctuations in a wireless connection) (see abstract, also refer to col. 3, lines 15-17).

Regarding claim 10, Garrabrant discloses a system (see claim 9 rejection) wherein the RF detecting means can detect the presence of RF energy while the at least one circuitry portion is in sleep mode (see col. 3, lines 24-26).

Regarding claim 11, Garrabrant discloses a system (see claim 8 rejection) wherein the processor means includes RF communication circuitry (see figs. 4-5, col. 3, lines 24-26, col. 7, line 26-col. 9, line 4, and col. 9, lines 36-49).

Regarding claim 12, Garrabrant discloses a system (see claim 9 rejection) wherein the RF detecting means and the processor means share passive RF components (i.e., the DSP is capable of awakening the main processor if a detection is made, and the main processor sends command to the DSP) (see col. 3, lines 15-16, and lines 24-26).

Regarding claim 13, Garrabrant discloses a system (see claim 8 rejection) wherein the UPS includes the switching means (i.e., the DSP periodically awakens (switches) from the sleep mode, which inherently affects the UPS. Thus, one skilled in the art would unhesitatingly conceptualize that the UPS includes the DSP) (see col. 3, lines 20-24).

Regarding claim 14, Gibbons discloses a system (see claim 8 rejection) wherein the controller includes computing means for storing and running executable instruction code (see col. 2, lines 60-67. Also refer to claim 8 reasoning for combining).

Regarding claim 15, Gibbons discloses a system (see claim 14 rejection) wherein the instruction code includes a timer for maintaining the at least one circuitry portion in a sleep mode for a predetermined period of time (i.e., frame count) (see col. 2, lines 65-67. Also refer to claim 8 for reason for combining).

Regarding claim 18, Garrabrant discloses a system (see claim 8 rejection) wherein the processor means includes computing means for storing and running executable instruction code (see col. 7, lines 32-39).

Regarding claim 19, Garrabrant discloses a system (see claim 18 rejection) wherein the executable instruction code includes a method for making the determination as to whether to place the processor means in sleep mode on the presence of an active communication channel (see abstract, figs. 4-5, and col. 8, line 65 to col. 9, line 65).

Regarding claim 20, Garrabrant discloses a system (see claim 14 rejection) wherein the instruction code includes a method for awakening the at least one circuitry portion from sleep mode upon the occurrence of a predetermined factor (see Garrabrant col. 3, lines 24-26, and Gibbons col. 2, lines 65-67).

Regarding claim 21, Garrabrant discloses a system (see claim 20 rejection) wherein the predetermined factor is the elapsing of a predetermined period of time measured by a timer (see Garrabrant col. 3, lines 20-24, and Gibbons col. 2, lines 65-67).

Regarding claim 22, Garrabrant discloses a system (see claim 20 rejection) wherein the predetermined factor includes the detection of the presence of RF energy at the network connection (see col. 3, lines 24-26).

6. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Garrabrant and Gibbons, in further view of Matsunaga.

The combination (Garrabrant and Gibbons) discloses a system as described above (see claim 8 rejection).

Although the combination discloses a system as described, the combination does not specifically disclose a system wherein the controller includes a monitoring means coupled to the UPS for sensing when off site AC power is present at the UPS.

However, Matsunaga discloses a system including means coupled to the UPS for sensing when off site AC power is present at the UPS (see page 4, paragraphs 50).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described by Matsunaga with the teachings as described by Garrabrant and Skinner to arrive at the claimed invention. A motivation for doing so would have been to switch power consumption from the battery to the AC power supply is detected, which would prolong the service life of the battery.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pierre-Louis Desir whose telephone number is (571) 272-7799. The examiner can normally be reached on Monday-Friday 8:00AM- 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on (571) 272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Pierre-Louis Desir/
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11/14/2006

/Joseph Feild/
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SUPERVISORY PATENT EXAMINER